

THE CHECKLIST OF GREEN ALGAE OF THE IRANIAN COASTAL LINES OF THE PERSIAN GULF AND GULF OF OMAN

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In this checklist 62 species of marine green algae (Chlorophyta) are reported from Iranian coastal lines of Persian Gulf and Oman Gulf. This list represents a summary of 9 scientific papers published over a period of 159 years. The scientific name of the taxa are checked by www.algaebase.org designed by M. Guiry. Total number of Iranian green algae from 23 species in Basson checklist and from 42 species for all areas of the Persian Gulf are increased to 62 species in present checklist. *Caulerpa brachypus*, *Caulerpa scalpelliformis*, *Codium fragile* and *Halimeda discoidea* are new records for Persian Gulf and Oman Gulf.

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چک لیست جلبکهای سبز خلیج فارس و خلیج عمان در نوار ساحلی ایران

جلوه سهرابی پور و رضا ربیعی

در این چک لیست 62 گونه از جلبکهای دریایی سبز متعلق به آبهای خلیج فارس و خلیج عمان در نوار ساحلی ایران ارائه می‌گردد که خلاصه‌ای است از مجموع 9 گزارش علمی منتشر شده در مورد جلبکهای خلیج فارس و نواحی ایرانی خلیج عمان که در طی 159 سال گذشته منتشر شده‌اند. نام صحیح گونه‌ها در سایت www.algaebase.org که بوسیله جلبک‌شناس معروف مک گیوری طراحی گردیده است کنترل شده است. در این چک لیست تعداد گونه‌های جلبکهای سبز سواحل ایرانی خلیج فارس که در چک لیست قبلی منشتر شده از منطقه 23 گونه بوده و تعداد جلبکهای سبز کل منطقه خلیج فارس که 42 گونه لیست گردیده بود به 62 مورد افزایش می‌یابد. 4 گونه از لیست حاضر با اسامی علمی *Caulerpa brachypus* و *Caulerpa scalpelliformis* و *Halimeda discoidea* و *Codium fragile* به عنوان گونه‌های رکورد برای سواحل ایران گزارش می‌گردند.

Introduction

The first reports on marine algae of the Persian Gulf was published in 1845 by Endlicher and Diesing (1845). In this study six species of brown and red algae were reported from Kharg and Kish islands in south of Iran. Børgesen (1939) introduced 77 species of marine algae from the Iranian seashores of Persian Gulf and 23 species from Arabian regions of the area. From 22 green species of this list 19 species belonged to Iranian area. Nizamudin and Gessner (1970) studied the specimens which had been collected in Indian Ocean expedition. In their report 69 species were introduced

that 12 species of them were green algae which 4 species were collected from Iranian seashores. Sohrabipour and Rabiei (1996, 1999, 2005) reported 154 species of marine algae from seashores of Hormozgan province in South of Iran. In these lists 36 species were green algae. Sohrabipour et al. (2004) reported 119 species of marine algae from Bandar Lengeh province in South of Iran that 29 species of the list were green algae.

Arabian regions of the Persian Gulf also were studied by Al-Hasan and Jones (1989), Basson et al. (1977, 1989), Basson (1979a, 1979b), Børgesen (1939), DeClerke et al. (1996) and Newton (1955a, 1955b).

Basson (1992) published a checklist of marine algae of Persian Gulf that in which he listed 207 species of marine algae based on previous publications on the marine algae of Persian Gulf. 41 species of Basson checklist belonged to green algae which 23 of them were from Iranian coastal lines. In the recent studies on marine algae of Persian Gulf especially in Iranian regions many species of green algae newly recorded from this area. During a study on algal flora of Chabahar province in southeast of Iran (Oman Gulf) many species of the marine algae were collected and identified from this area. In present list 60 species of green algae are listed from the Iranian coastal lines of Persian Gulf and Oman Gulf. Total list of green algae of the area includes previous published species and 4 new reports in this article. The * sign are added to Basson checklist (1992) and ** sign are new records for Iranian coastal lines of Persian Gulf and Oman Gulf.

CHOLOROPYTA

ULVACEAE

- Ulva californica* Wille (15)*
Ulva clathrata (Roth) C. Agardh = *Enteromorpha clathrata* (Roth) J. Agardh (4, 7, 14, 15, 16)
Ulva compressa L. = *Enteromorpha compressa* (L.) Nees (4, 7, 14, 15, 16)
Ulva fasciata Delile (13, 15, 16)
Ulva flexuosa Wulfen = *Enteromorpha flexuosa* (Wulfen) J. Agardh (4, 15, 16)
Ulva intestinalis L. = *Enteromorpha intestinalis* (Linnaeus) Link (4, 15, 6)
Ulva lactuca L. (4, 7, 15, 16, 18)
Ulva linza Linnaeus *= *Enteromorpha linza* (L.) J. Agardh (15, 16)
Ulva reticulata Forsskål (4, 7)
Ulva prolifera O. F. Müller = *Enteromorpha prolifera* (O. F. Müller) J. Agardh (16)
Ulva rigida C. Agardh **

ULVELLACEAE

- Entocladia viridis* Reinke = *Endoderma viride* (Reinke) Lagerh (7) = *Acrochaete viridis* (Reinke) Nielsen (4)

PHAEOPHILACEAE

- Phaeophila dendroides* (P. L. Crouan & H. M. Crouan) Batters = *Phaeophila dendroides* (Crouan) Batters (4, 7)

CLADOPHORACEAE

- Chaetomorpha aerea* (Dillwyn) Kützing (4, 7, 15, 16)
Chaetomorpha antennina (Bory de Saint-Vincent) Kützing**
Chaetomorpha brachygona Harvey (15)*

- Chaetomorpha californica* F. S. Collins (15, 16)*
Chaetomorpha crassa (C. Agardh) Kützing (16)
Chaetomorpha gracilis (Kützing) Kützing (15, 16)*
Chaetomorpha linum (O. F. Müller) Kützing (4, 7, 15, 16)
Cladophora sericioides Børgesen (4, 7, 16)
Cladophora albida (Nees) Kützing* = *Cladophora magdalenae* Harvey (15)
Cladophora coelothrix Kützing (4, 7)
Cladophora echinus (Biasoletto) Kützing (4, 7, 16)
Cladophora flexuosa (O. F. Müller) Kützing* = *Cladophora flexuosa* (Griffiths) Harvey (15)
Cladophora koeiei Børgesen (4, 7, 15, 16)
Cladophora nitellopsis Børgesen (4, 7, 15, 16)
Cladophora radiosa (Suhr) Kützing (15)*
Cladophora sericioides Børgesen (4, 7, 13)
Cladophora vagabunda (Linnaeus) Hoek* = *Cladophora fascicularis* (Mertens ex C. Agardh) Kützing (15)
Rhizoclonium riparium (Roth) Harvey (16)*
Rhizoclonium riparium var. *implexum* (Dillwyn) Rosenvinge* = *Lola implexa* (Dillwyn) G. Hamel (15)
Rhizoclonium tortuosum (Dillwyn) Kützing (15)* = *Chaetomorpha capillaris* (Kützing) Børgesen (15)

SIPHONOCLADACEAE

- Cladophoropsis membranacea* (C. Agardh) Børgesen (14, 16)*
Cladophoropsis javanica (Kützing) P. C. Silva = *Cladophoropsis zollingerii* (Kützing) Reinbold (4, 7, 14)
Cladophoropsis sundanensis Reinbold (16)*
Siphonocladus feldmannii Børgesen (4, 7)

VALONIACEAE

- Valonia utricularis* (Roth) C. Agardh (4, 7)
Dictyosphaeria cavernosa (Forskål) Børgesen (14, 15, 16)

BRYOPSISIDACEAE

- Bryopsis hypnoides* J. V. Lamouroux (4, 7, 13)
Bryopsis implexa De Notaris (4, 7)
Bryopsis pennata J. V. Lamouroux* = *Bryopsis pennata* var. *secunda* (Harvey) Collins & Hervey (15, 16)
Bryopsis plumosa (Hudson) C. Agardh (15, 16)*
Bryopsis pennatula J. Agardh* (14, 15)

CAULERPACEAE

- Caulerpa fastigiata* Montagne (15)*
Caulerpa manorensis Nizamuddin (13, 15, 16)
Caulerpa mexicana Sonder ex Kützing (6, 15) = *Caulerpa crassifolia* (C. Agardh) J. Agardh (7)
Caulerpa peltata J. V. Lamouroux (14)* = *Caulerpa racemosa* var. *peltata* (Lamouroux) Eubank (15)

Caulerpa racemosa var. *macrophysa* (Sonder ex Kützing) W. R. Taylor (14, 15)*
Caulerpa sertularioides (S. G. Gmelin) Howe forma *farlowii* (Weber-Van Bosse) Børgesen (13, 15, 16)
Caulerpa sertularioides (S. G. Gmelin) M. Howe forma *sertularioides* (16)*
Caulerpa taxifolia (M. Vahl) C. Agardh (15, 16) *
Caulerpa brachypus Harvey ** - plate 1 (figure B)
 Chabahar: Gwater, Sohrabipour & Hasanpour 11667
Caulerpa scalpelliformis (Turner) C. Agardh ** - Plate 1 (figure C)
 Chabahar: Gowater, Sohrabipour & Rabiei 11760, 11757, 11755; Tang, Sohrabipour & Rabiei 11464 & 11463

HALIMEDACEAE

Halimeda discoidea Decaisne** - Plate 1 (figure A)
 Chabahar: Kachu, Rabiei 11034, 11059, 11060;
 Gwater, Sohrabipour & Hasanpour 11338; Tang, Sohrabipour & Rabiei 11376; Jood, Sohrabipour & Rabiei 11657; Ramin, Sohrabipour & Hasanpour 11713

CODIACEAE

Codium papillatum C. K. Tseng & W. J. Gilbert (15, 16)
Codium fragile (Suringar) Hariot ** - Plate 1 (figure D)
 Qeshm island: Shibderaz, Sohrabipour & Rabiei 2344, 2343, 2405 & 2406

DERBESACEAE

Derbesia marina (Lyngbye) Kjellman (17)*

POLYPHYSAEAE

Acetabularia calyculus J. V. Lamouroux in Quoy et Gaimard (14, 15, 16)
Parvocaulis parvula (Solms-Laubach) S. Berger, U. Fettweiss, S. Gleissberg, L. B. Liddle, U. Richter, H. Sawitsky, H. & G. C. Zuccarello * = *Polyphysa parvula* (Solms-Laubach) Schnetter & Bula Meyer (15)
Parvocaulis clavata (Yamada) S. Berger, U. Fettweiss, S. Gleissberg, L. B. Liddle, U. Richter, H. Sawitsky, H. & G. C. Zuccarello* = *Acetabularia moebii* Solms-Laubach (15)

UDOTEACEAE

Avrainvillea amadelpha (Montagne) A. Gepp & E. S. Gepp = *Avrainvillea calathina* Kraft & Olsen-Stojkovich (14, 15, 16)

Conclusion

The list shows the number of *Siphonales* and *Caulerpales* were increased in recent studies. Because The Persian Gulf occurred in Arabian subregions of the indo-west pasific regions of the tropical groups of the

marine biogeography, the increasing in species number of the *Siphonales* and *Caulerpales* are expected as Børgesen expected (1939).

Enteromorpha spp. was transferred to *Ulva* genus based on Hayden et al (2003). *Parvocaulis parvula* and *Parvocaulis clavata* are new combination names which were recently made.

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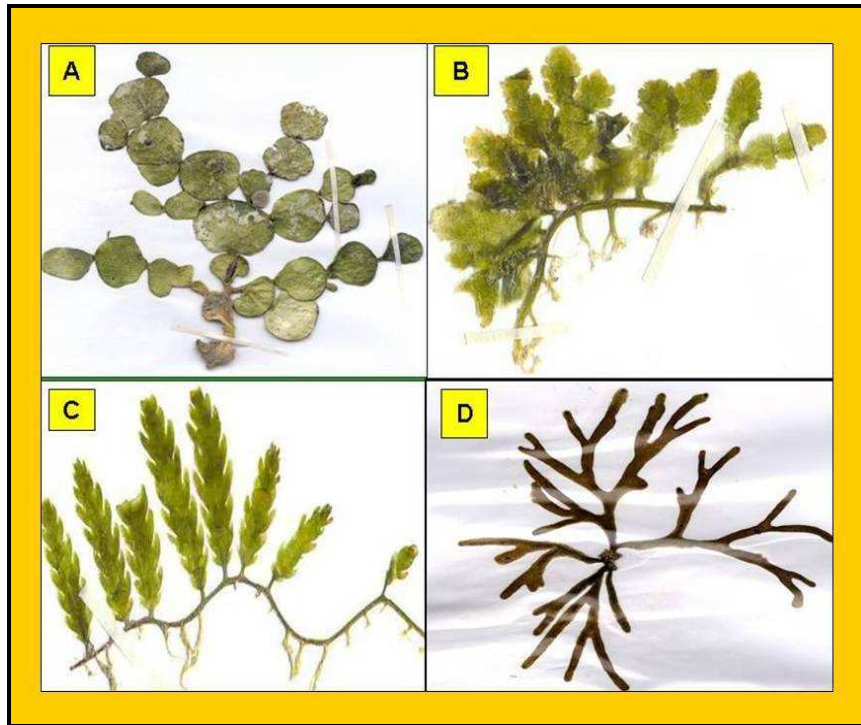


Plate 1: (A) *Halimeda discoidea* Decaisn ; (B) *Caulerpa brachypus* Harvey; (C) *C. scalpelliformis* (Turner) C. Agardh; (D) *Codium fragile* (Suringar) Hariot

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